REMARKS

Upon entry of this Amendment, Claims 1-2, 4, and 9-13 will be pending. Claims 1, 4, and 9-13 are hereby amended. Support for the amended claims may be found throughout the Specification. See, for example, Specification at page 9, line 18 - page 10, line 7; page 10, line 16 - page 11, line 19; and page 14, lines 14-19. No new matter is added by way of these amendments.

I. Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 1, 2, 4, and 9-13 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly "being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Office Action at page 2. Applicants disagree.

Applicants respectfully submit that the Examiner's 35 U.S.C. § 112, second paragraph, indefiniteness rejection lacks any legal basis. Applicants submit that the scope of the subject matter claimed is clear, thus the claims comply with 35 U.S.C. § 112, second paragraph. *See, e.g.*, MPEP § 2173.04. Moreover, MPEP § 2173.02 states that the Examiner "should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness." Further, the MPEP requires that definiteness of claim language must be analyzed, not in a vacuum, but in light of the disclosure, prior art, and ordinary skill in the pertinent art. *Id.* Given this, Applicants respectfully submit that the claims are definite.

(a) In rejecting the claims, the Examiner assets that the term "complement" is indefinite. Office Action at page 2. The Examiner further suggests that the claims be amended by placing the term "full-length" in front of the term "complement." *Id.*

Applicants respectfully disagree with the rejection under 35 U.S.C. § 112, second paragraph, which appears to be based on the breath of the claim rather than any difficulty in determining its metes and bounds. That said, Applicants believe that this rejection has been rendered moot by the foregoing claim amendments. As such, Applicants respectfully request withdrawal of this rejection.

(b) The Examiner alleges that the term "substantially purified" is unclear. Office Action at page 2. The Examiner further alleges that "[t]he specification gives examples of different levels of purity but does not define this term." *Id.* The Examiner further suggests that Applicants amend "substantially purified" to "isolated." *Id.*

Applicants respectfully disagree with the rejection under 35 U.S.C. § 112, second paragraph, which appears to be based on the breath of the claim rather than any difficulty in determining its metes and bounds. That said, Applicants believe that this rejection has been rendered moot by the foregoing claim amendments. As such, Applicants respectfully request withdrawal of this rejection.

Applicants assert that a skilled artisan would understand the phrase "substantially purified" in light of Applicants' disclosure and the knowledge of one of skill in the art. For example, Applicants direct the Examiner's attention to page 9, line 22 - page 10, line 1 of the specification, which states that "[a] substantially purified molecule may be greater than 60% free, preferably 75% free, more preferably 90% free, and most preferably 95% free from the other molecules (exclusive of solvent) present in the natural mixture." As such, Applicants assert that the meaning of the phrase "substantially purified" is clear in light of the specification.

(c) The Examiner alleges that the term "stringent conditions" is unclear "because the specification gives examples of different hybridization conditions for stringent conditions but does not define this term." Office Action at page 3. The Examiner further suggests that Applicants amend the claims to recite the desired hybridization conditions *Id.*

Applicants respectfully disagree with the rejection under 35 U.S.C. § 112, second paragraph, which appears to be based on the breath of the claim rather than any difficulty in determining its metes and bounds. That said, Applicants believe that this rejection has been rendered moot by the foregoing claim amendments. As such, Applicants respectfully request withdrawal of this rejection.

A skilled artisan would understand the phrase "stringent conditions" in light of Applicants' disclosure and the knowledge of one of skill in the art. Based on the teachings of the specification, Applicants further assert that this phrase is neither misleading nor inaccurate. For

example, Applicants direct the Examiner's attention to page 11, line 17 of the specification, which states that "[f]or example, conditions may vary from low stringency of about 2.0.x SSC at 40°C. to moderately stringent conditions of about 2.0.x. SSC at 50 °C. to high stringency conditions of about 0.2.x SSC at 50 °C." Moreover, Applicants also note that different levels of stringency conditions are recognized by the art and are described, for example, in Molecular Cloning: A Laboratory Manual, 3.sup.rd edition Volumes 1, 2, and 3. J. F. Sambrook, D. W. Russell, and N. Irwin, Cold Spring Harbor Laboratory Press, 2000. Specification at page 11, lines 5-7. As such, Applicants assert that the meaning of the phrase "stringent conditions" is clear in light of the specification.

In light of the foregoing, Applicants respectfully reiterate that the Examiner has not met the legal standard to maintain the rejection of the pending claims under 35 U.S.C. § 112, second paragraph. Accordingly, Applicants request reconsideration and withdrawal of the indefiniteness rejection.

II. Rejection under 35 U.S.C. §101

Claims 1, 2, 4 and 9-13 stand rejected under 35 U.S.C. § 101, because the claimed invention allegedly lacks patentable utility. Office Action at page 3. The Examiner further alleges that "the claimed invention is not supported by either a substantial, specific asserted utility or a well established utility." *Id.* Applicants disagree.

In *In re Fisher*, the Federal Circuit reiterated that the "basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived from the public from an invention with *substantial utility*." *In re Fisher*, 421 F.3d 1365, 1371 (Fed. Cir. 2005) (citing *Brenner v. Manson*, 383 U.S. at 534-35, 1966) (emphasis in original). The Court noted that since "*Brenner* our predecessor court, the Court of Customs and Patent Appeals, and this court have required a claimed invention to have a specific and substantial utility to satisfy §101." *Id.* Furthermore, an invention need only provide one identifiable benefit to satisfy 35 U.S.C. §101. *See Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958 (Fed. Cir. 1983) ("when a properly claimed invention meets at least one stated objective, utility under section 101 is clearly shown").

Although the Supreme Court has not defined the meaning of the terms "specific" and "substantial", the Federal Circuit has identified a framework for the kind of disclosure an application could contain to establish a specific and substantial utility. *In re Fisher*, 421 F.3d at 1371. First, the Court indicated that to provide a substantial utility, the specification should disclose a utility such that "one skilled in the art can use a claimed discovery in a manner which provides some *immediate benefit to the public.*" *Id.* (emphasis in original). Second, a specific utility can be disclosed by discussing "a use which is not so vague as to be meaningless," that is that the claimed invention "can be used to provide a well-defined and particular benefit to the public." *Id.*

At the outset, Table 1 indicates that SEQ ID NO: 3366 is a member of the cytochrome p450 family and exhibits a strong correlation to a number of cytochrome p450 family members, such as Accession No. AY050980 and Accession No. AY091446. Alone, this is a substantial, specific, and well-established utility and is sufficient to satisfy the utility requirement under 35 U.S.C. § 101.

Additionally, the utility of SEQ ID NO: 3366 is further demonstrated by a BLASTN analysis. The specification as filed discloses that a BLASTN analysis is well-known and conventional techniques that can be used to obtain information about nucleic acid sequences. Specification, for example, at page 4 - page 22, line 12; page 42, line 18 - page 46, line 16; and Example 2. The results of a BLASTN analysis of SEQ ID NO: 3366 demonstrate a strong correlation between SEQ ID NO:3366 and numerous well-established cytochrome p450 sequences. For example, as provided in the attached Information Disclosure Statement, at least the following sequences exhibit a greater than 54% percent identity to SEQ ID NO: 3366 together with a well-established utility as a cytochrome p450 protein: Accession No. NM118043, Accession No. AY091446, Accession No. AY050980, Accession No. AB122149, Accession No. NM202845, Accession No. NM123902, Accession No. NM180805, and Accession No. AB122150.

The results of a BLASTP analysis of the elected amino acid sequence, SEQ ID NO: 6915, also demonstrates a strong correlation between SEQ ID NO: 6915 and numerous well-

established cytochrome p450 sequences. For example, as provided in the attached Information Disclosure Statement, at least the following sequences exhibit a greater than 54% percent identity to SEQ ID NO: 6915 together with a well-established utility as a cytochrome p450 protein: Accession No. NP001047855, Accession No. Q05JG2, Accession No. NP567581, Accession No. NP851136, Accession No. CAA16713, Accession No. NP974574, Accession No. NP199347, Accession No. NP566628, Accession No. NP974574, Accession No. NP180473, Accession No. AAZ23260, Accession No. BAD38475, and Accession No. Q09J78.

As confirmed by BLASTN and BLASTP searches, there are a number of well-known cytochrome p450 sequences that exhibit a greater than 54% percent identity to both SEQ ID NO: 3366 and SEQ ID NO: 6915. The above BLAST analysis complements Table 1 of the specification which indicates that SEQ ID NO: 3366 is a member of the cytochrome p450 family and exhibits a strong correlation to a number of cytochrome p450 family members. Applicants respectfully submit that the results of the BLASTN and BLASTP analysis demonstrate that both SEQ ID NO: 3366 and SEQ ID NO: 6915 have utilities specific to them and not generally applicable to any nucleotide and amino acid sequence, respectively. These utilities are credible, substantial, and well-established; they are neither vague nor impractical. Applicants need only establish a single utility to satisfy 35 U.S.C. § 101, and have done so in the present case.

Moreover, an article by Werck-Reichhart *et al.* indicates that "[s]equence identity among P450 proteins is often extremely low and may be less than 20% and there are only three absolutely conserved amino acid." "Cytochromes P450: a success story," *Genome Biology*, **1** reviews, 3003.1-3003.9, at page 3002.2, December 8, 2000. Further, according to Werck-Reichhart *et al.*, the amino-acid sequence of the cytochrome p450 family is "extremely diverse, with levels of identity as low as 16% in some cases." *Id.* at abstract. At a minimum, this indicates that the greater than 54% sequence identity between both SEQ ID NO: 3366 and SEQ ID NO: 6915 and well-known cytochrome p450 sequences is more than sufficient to satisfy the utility requirement under 35 U.S.C. § 101.

The present application provides utilities for the claimed polypeptides that are well-defined and provide an immediate benefit to the public. The fact that the claimed nucleotide and

amino acid sequences exhibits a high correlation to cytochrome p450 proteins is more than ample to support the specific utilities asserted in the specification. Moreover, there are numerous other utilities asserted in the specification regarding nucleotide sequence SEQ ID NO: 3366 and amino acid sequence SEQ ID NO: 6915. Specification at page 6, line 10-17; page 7, line 23 - page 8, lines 17; page 12, line 13 - page 13, line 13; page 14, line 20 - page 15, line 2; page 15, line 12 - 21, line 3; and Table 1. Without being limited, the specification provides that the sequences of the invention can also be used for improving nitrogen yield, improving stress, heat, cold, osmotic, draught, and pest tolerance, increasing seed protein yield and content. Specification at page 15, line 22 - page 21, line 3. Any one of these asserted utilities is specific, substantial and credible under the requirements of 35 U.S.C. § 101.

Applicants respectfully remind the Examiner that the utilities asserted in the specification must be accepted as factually sound unless the Patent Office cites information that undermines the credibility of the assertion. *In re Brana*, 51 F.3d 1560, 1567, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995). As the Examiner is aware, "a 'rigorous correlation' need not be shown in order to establish practical utility; 'reasonable correlation' is sufficient." *See, Fujikawa v. Wattanasin*, 93 F.3d 1559, 1565, 39 U.S.P.Q.2d 1895, 1900 (Fed. Cir. 1996), emphasis added. "An Applicant can establish this reasonable correlation by relying on statistically relevant data documenting the activity of the compound or composition, arguments or reasoning, documentary evidence, or any combination thereof." M.P.E.P. § 2107.03, at page 2100-43.

In conclusion, because Applicants need only establish a single utility to satisfy 35 U.S.C. § 101, and have done so with sufficient specificity and reasonable correlation in the present application, the rejection under 35 U.S.C. § 101 is incorrect and Applicants respectfully request its withdrawal.

III. Rejection Under 35 U.S.C. § 112, First Paragraph, Enablement

Claims 1, 2, 4 and 9-13 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly not being enabled because the claimed invention lacks utility. Office Action at page 5. In rejecting the claims, the Examiner asserts that "since the claimed invention is not supported by either a substantial, specific asserted utility or a well-established utility for the reasons set forth

above, one skilled in the art would not know how to use he claimed invention." *Id.* Applicants disagree.

Applicants submit that the rejection of Claims 1, 2, 4 and 9-13 under 35 U.S.C. § 112, first paragraph, has been overcome by the arguments set forth above with respect to the rejection under 35 U.S.C. § 101. In other words, Appellants respectfully submit that the claimed nucleic acid molecules have specific, substantial, and well-established utilities, and therefore one skilled in the art would know how to make and use the claimed invention. Therefore, Applicants request withdrawal of the rejection of Claims 1, 2, 4 and 9-13 under 35 U.S.C. § 112, first paragraph.

Applicants further disagree with the Examiner's assertion that "with regard to claims reciting sequences which hybridizes to SEQ ID NO:3366 and sequences having less than 100% sequence identity to SEQ ID NO:3366, these claims are further not enabled because they encompass unspecified base substitutions, deletions, additions, and/or combinations thereof without any recitation of function." Office Action at page 5. In rejecting the claims, the Examiner asserts that "[e]ven if the claimed sequence confers stress tolerance or disease resistance when expressed, these claims are not enabled because Applicant provided no working example or guidance as to which region(s) of SEQ ID NO:3366 should be retained, which region(s) would tolerate mutations, or how one skilled in the art can predictably or reliably make such determination without undue experimentation." *Id.* at pages 5-6. Applicants disagree.

The Examiner has not met the evidentiary burden to impose an enablement rejection. A specification that discloses how to use a claimed invention "must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein." *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995), *quoting In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (C.C.P.A. 1971) (emphasis in original).

As the M.P.E.P. makes clear, "(t)he specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public." M.P.E.P. § 2164.05(a). *See also*, *In re Buchner*, 929 F.2d 660, 661

(Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463 (Fed. Cir. 1984). Furthermore, it is well-established patent jurisprudence that Applicants need not teach "conventional and well-known genetic engineering techniques." *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345 (Fed. Cir. 2000).

Applicants disagree with the Examiner's assertion that "[w]hile one skilled in the art can readily make mutations to SEQ ID NO:3366 or the sequence encoding SEQ ID NO:6915, further guidance is needed as to what mutations would not abrogate its function, which is undisclosed or unknown here." *Id.* at page 6. This assertion by the Examiner completely disregards the standard of one of ordinary skill in the art. Given at least the teachings of the specification, one of ordinary skill in the art would have the ability to make nucleotide substitutions to SEQ ID NO: 3366 and amino acid substitutions to SEQ ID NO: 6915 without undue experimentation. Performing routine and well-known steps cannot create undue experimentation even if it is laborious. *See In re Angstadt*, 537 F.2d 498, 504, 190 U.S.P.Q. 214, 218-219 (C.C.P.A. 1976). However, the Examiner ignores this in rejecting the claims.

Applicants have provided considerable direction and guidance such that it is well within the level of ordinary skill in the art to practice the claimed invention without undue experimentation. For example, given the specification, one of skill in the art would recognize that degeneracy of the genetic code would account for nucleic acid molecules comprising different nucleotides but encoding for the same protein with the same function. Specification, for example, at page 14, lines 3-13. Moreover, one of skill in the art would also have the ability to modify the nucleic acid sequence of SEQ ID NO:3366 such that it would encode for a protein with conservative amino acid substitutions. Specification, for example, at page 22, line 12 - page 23, line 16. As provided in the specification, one of skill in the art would recognize that conservative amino acid substitution is based on a variety of well known factors and can be accomplished without undue experimentation. *Id.* For example, without being limited, one of skill in the art would have the ability to make conservative amino acid substitutions based on the charge, polarity, hydrophobicity, hydrophilicity, and relative side group of the amino acid. *Id.*

Additionally, one of skill in the art would recognize that changes to the critical region of a protein should be handled with caution as to avoid influencing the activity of the protein. *Id.*

It is submitted that Applicants have provided considerable direction and guidance, and has presented working examples such that it is well within the level of ordinary skill in the art to practice the invention without undue experimentation. The Examiner has not provided sufficient evidence to discredit the teaching in the specification. Rather, the Examiner suggests inapplicable and generalized observations.

Accordingly, for at least these reasons, it is submitted that the claims are sufficiently enabled under 35 U.S.C. § 112, first paragraph, and withdrawal of this rejection is respectfully requested.

IV. Rejection under 35 U.S.C. § 112, First Paragraph, Written Description

Claims 4 and 9-12 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly "failing to comply with the written description requirement." Office Action at page 6. In rejecting the claims, the Examiner asserts that "[t]he claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed had possession of the claimed invention." *Id.* Applicants disagree.

The purpose of the written description requirement is to ensure that the inventor had possession of the claimed subject matter, *i.e.*, to ensure that the inventors actually invented what is claimed. *Gentry Gallery Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479 (Fed. Cir. 1998); *Lockwood v. American Airlines*, 107 F.3d 1565, 1572 (Fed. Cir. 1997); *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996). In accordance with this purpose, Applicants need not "describe," in the sense of 35 U.S.C. § 112, all things that are encompassed by the claims. To contend otherwise would contradict established jurisprudence, which teaches that a patent may be infringed by technology developed after a patent issues. *United States Steel Corp. v. Phillips Petroleum Co.*, 865 F.2d 1247, 1251 (Fed. Cir. 1989). A related, and equally well-established principle of patent law is that claims "may be broader than the specific embodiment disclosed in a specification." *Ralston-Purina Co. v. Far-mor-Co*, 772 F.2d 1570, 1575 (Fed. Cir. 1985),

quoting In re Rasmussen, 650 F.2d 1212, 1215 (C.C.P.A. 1981). Thus, in order for Applicants to describe each and every molecule encompassed by the claims, it is not required that every aspect of those nucleic acid molecules be disclosed. *In re Alton*, 76 F.3d at 1175 (if a person of ordinary skill in the art would, after reading the specification, understand that the inventors had possession of the claimed invention, even if not every nuance, then the written description has been met).

An adequate written description of a genus of nucleic acids, such as those recited in Claims 4 and 9-12, may be achieved by either "a recitation of a representative number of [nucleic acid molecules], defined by nucleotide sequence, falling within the scope of genus or of a recitation of structural features common to the members of the genus." *Regents of the University of California v. Eli Lilly & Co.*, 119 F.3d 1559, 1568-69 (Fed. Cir. 1997). The feature relied upon to describe the claimed genus must be capable of distinguishing members of the claimed genus from non-members. *Id.* Further, Applicants need not describe every possible sequence that may be included in the claimed genus of nucleic acid molecules. Indeed, recently, the Federal Circuit stated that "[i]t is not necessary that every permutation within a generally operable invention be effective in order for an inventor to obtain a generic claim, provided that the effect is sufficiently demonstrated to characterize a generic invention." *Capon v. Eshhar*, 418 F.3d 1349, 1359 (Fed. Cir. 2005). Applicants have satisfied this requirement.

In rejecting the claims, the Examiner asserts that "[a]pplicant discloses a single sequence SEQ ID NO:3366 isolated from rice" and "[t]hus, there are insufficient relevant identifying characteristics to allow one skilled in the art to predictably determine such mutants, allelic variants and sequences from other plants and organisms, absent further guidance." Office Action at page 7. The Examiner further asserts that "sequences having less than 100% sequence identity lack written description because Applicant does not disclose a representative number of species as encompassed by these claims." *Id.* at page 6. Applicants disagree.

One of skill in the art would recognize that Applicants were in possession of a sufficient number of both SEQ ID NO:3366 and SEQ ID NO:6915 variants to satisfy the written description requirement under 35 U.S.C. § 112. For instance, given the teachings of the

specification, one of skill in the art would have the ability to modify the nucleic acid sequence of SEQ ID NO:3366 such that it would encode for a protein with conservative amino acid substitutions. Specification, for example, at page 22, line 12 - page 23, line 16. As provided in the specification, one of skill in the art would recognize that conservative amino acid substitution is based on a variety of well known factors and can be accomplished without undue experimentation. For example, one of skill in the art would have the ability to make conservative amino acid substitutions based on the charge, polarity, hydrophobicity, hydrophilicity, and relative side of the amino acid. *Id.* With this, one of skill in the art would recognize that Applicants were in possession of numerous species of both SEQ ID NO:3366 and SEQ ID NO:6915.

In particular, Applicants have disclosed common structural features, for example the nucleotide sequence of SEQ ID NO:3366 and the complete amino acid sequence of SEQ ID NO:6915. For example, if a particular nucleic acid molecule contains the nucleotide sequence of SEQ ID NO: 3366, then it is a member of the claimed genus of nucleic acid molecules comprising a nucleic acid sequence of SEQ ID NO:3366. Moreover, closely related nucleic acid molecules falling within the scope of the claimed invention are readily identifiable - they either contain the nucleic acid sequence of SEQ ID NO: 3366 (or complements thereof), or share a claimed identity with SEQ ID NO: 3366 (or complements thereof), or they do not. The fact that the nucleic acid molecules may comprise additional sequences or variations is beside the point. Such modifications are readily envisioned by one of ordinary skill in the art and disclosed throughout the specification.

In rejecting the claims, the Examiner implies that sequences having less than 100% sequence identity to either SEQ ID NO:3366 or SEQ ID NO:6915 lack written description. Office Action at page 6. However, the Examiner has offered no evidence to demonstrate why one of ordinary skill in the art would reasonably doubt that Applicants have adequately described the claimed invention in the present disclosure. Whether or not the genus is large or variable, it shares a common feature, *i.e.*, a substantially purified nucleic acid molecule having the nucleic acid sequence of SEQ ID NO:3366 or its complement, and one of ordinary skill in the art would recognize that Applicants were in possession of the genus of nucleic acid molecules comprising a

nucleic acid sequence having at least about 90% sequence identity to the nucleic acid molecule of SEQ ID NO: 3366.

Applicants further disagree with the Examiner's assertion that "[s]equences which 'hybridize under stringent conditions'... lack written description because Applicant does not disclose a representative number of species as encompassed by these claims." Office Action at page 6. Applicants have provided a representative number of species combined with their shared physical properties. For example, Applicants direct the Examiner's attention to page 11, line 17 of the Specification, which states that "[f]or example, conditions may vary from low stringency of about 2.0.x SSC at 40°C. to moderately stringent conditions of about 2.0.x. SSC at 50 °C. to high stringency conditions of about 0.2.x SSC at 50 °C." Moreover, Applicants also note that different levels of stringency conditions are recognized by the art and are described, for example, in Molecular Cloning: A Laboratory Manual, 3.sup.rd edition Volumes 1, 2, and 3. J. F. Sambrook, D. W. Russell, and N. Irwin, Cold Spring Harbor Laboratory Press, 2000. Specification at page 11, lines 5-7. With this, one of ordinary skill in the art would recognize that Applicants were in possession of the claimed invention.

The fundamental factual inquiry for satisfying the written description requirement is whether the specification conveys with reasonable clarity to those skilled in the art, as of the filing date sought, that Applicants were in possession of the invention as now claimed. *See, e.g., Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). An Applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations. *Lockwood*, 107 F.3d at 1572; M.P.E.P. § 2163.02. In light of the disclosure of the specification one of ordinary skill in the art at the time the application was filed would have readily recognized that Applicants were in possession of the invention as claimed.

By describing the common structural feature of the claimed nucleic acid molecules, *i.e.*, SEQ ID NO: 3366 and SEQ ID NO:6915, Applicants respectfully submit that they have satisfied, at least, the *Eli Lilly* test for written description. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 4 and 9-12 under 35 U.S.C. § 112, first paragraph.

V. Rejections under 35 U.S.C. § 102(b)

Claims 4 and 9-13 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sasaki *et al.* (Accession No. AP004129, GenEmbl Database, 2001). Office Action at pages 7-8. In rejecting the claims, the Examiner asserts that "[f]ragment is defined in the specification as any 15 nucleotide sequence of SEQ ID NO: 3366 having no specified function." *Id* at page 7. The Exanimer further asserts that Sasaki anticipates the claimed invention because it has at least a "15 consecutive nucleotide sequence in common with SEQ ID NO: 3366." *Id.* at page 8.

Applicants disagree. However, solely in order to facilitate prosecution, Applicants have amended the claims to delete the phrase "fragment of either." As the Examiner's rejection is now rendered moot, Applicants respectfully request reconsideration of the rejection.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is now in condition for allowance, and respectfully request notice of such. The Examiner is encouraged to contact the undersigned at 202-942-5000 if any additional information is necessary for allowance.

Respectfully submitted,

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